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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,454	01/27/2000	Xiaowen Yang	YANG 1	9889

7590

10/04/2005

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EXAMINER
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MOORTHY, ARAVIND K

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/492,454	<b>Applicant(s)</b> YANG, XIAOWEN	
	<b>Examiner</b> Aravind K. Moorthy	<b>Art Unit</b> 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

*AT*

### DETAILED ACTION

1. This is in response to the amendment filed on 30 August 2005.
2. Claims 1-22 are pending in the application.
3. Claims 1-22 have been rejected.

### *Response to Arguments*

4. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 2, 4-10, 12-15, 17, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mangold et al U.S. Patent No. 6,668,324 B1 in view of Miliani et al U.S. Patent No. 5,682,426.**

As to claim 1, Mangold et al discloses a device to descramble a packetized digital data stream, comprising:

the packet including a header portion and a data payload, the data payload including a scrambled central portion and an unscrambled portion [column 8, lines 40-45]; and

a descrambler to descramble the scrambled central portion of the data payload of the packet [column 11, lines 24-40];

wherein the header portion is entirely unscrambled [column 4, lines 55-63].

Mangold et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header portion and a data payload. The data payload would have included a scrambled central portion and an unscrambled portion. A descrambler would have descrambled the scrambled central portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 2, Mangold et al teaches that the scrambled central portion of the data payload is at a location within the payload portion of the packet such that the scrambled central portion is preceded and succeeded by the unscrambled portion [column 8, lines 40-45].

As to claim 4, Mangold et al teaches that the packet contains compressed digital data [column 6 line 65 to column 7 line 24].

As to claim 5, Mangold et al teaches that the compressed digital data includes a video signal [column 5, lines 35-46].

As to claim 6, Mangold et al teaches that the compressed digital data includes an audio signal [column 5, lines 35-46].

As to claim 7, Mangold et al teaches that the compressed digital data includes a video signal and an audio signal [column 5, lines 35-46].

As to claim 8, Mangold et al teaches a method of scrambling a packetized digital data stream, comprising:

producing a data packet stream comprising a plurality of data packets [column 4, lines 55-63]; and

scrambling a first central portion of a data payload of some of the plurality of data packets within the data packet stream and without scrambling the header of the packets [column 4, lines 55-63].

Mangold et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header portion and a data payload. The data payload would have included a scrambled central portion and an unscrambled portion. A descrambler would have descrambled the scrambled central

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portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 9, Mangold et al teaches that the scrambling leaves a second portion of the data payload of each of the some of the plurality of data packets unscrambled [column 4, lines 55-63].

As to claim 10, Mangold et al teaches a method of scrambling a packetized digital data stream, comprising:

producing a data packet stream comprising a plurality of data packets  
[column 4, lines 55-63]; and

scrambling only a central portion of every nth one of the plurality of data  
packets, where n is an integer greater than 1 [column 4, lines 55-63].

Mangold et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header

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portion and a data payload. The data payload would have included a scrambled central portion and an unscrambled portion. A descrambler would have descrambled the scrambled central portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 12, Mangold et al teaches compressed video data [column 5, lines 35-46].

As to claim 13, Mangold et al teaches compressed audio data [column 5, lines 35-46].

As to claim 14, Mangold et al teaches compressed video data and compressed audio data [column 5, lines 35-46].

As to claim 15, Mangold et al teaches a method of descrambling a packetized digital data stream, comprising:

receiving a data packet stream comprising a plurality of data packets [column 4, lines 55-63]; and

descrambling only a central portion of every one of the plurality of data packets [column 11, lines 24-40].

Mangold et al does not teach descrambling every  $n$ th packet, where  $n$  is an integer greater than 1, leaving remaining ones of the plurality of data packets as received.

Miliani et al teaches descrambling every  $n$ th packet, where  $n$  is an integer greater than 1, leaving remaining ones of the plurality of data packets as received [abstract.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al so that only the central portion of every  $n$ th packet, where  $n$  was an integer greater than 1, would have been decrypted and the leaving the remaining ones.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 17, Mangold et al teaches an apparatus for scrambling a packetized digital data stream, comprising:

producing a data packet stream comprising a plurality of data packets  
[column 4, lines 55-63]; and

scrambling a first central portion of a data payload of the plurality of data  
packets within the data packet stream and without scrambling a header of the  
plurality of data packets [column 4, lines 55-63].

Mangold et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header



portion and a data payload. The data payload would have included a scrambled central portion and an unscrambled portion. A descrambler would have descrambled the scrambled central portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 19, Mangold et al teaches an apparatus for scrambling a packetized digital data stream, comprising:

producing a data packet stream comprising a plurality of data packets  
[column 4, lines 55-63]; and

scrambling only a central portion of the plurality of data packets [column  
4, lines 55-63].

Mangold et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header portion and a data payload. The data payload would have included a scrambled central portion

and an unscrambled portion. A descrambler would have descrambled the scrambled central portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 21, Mangold et al teaches an apparatus for descrambling a packetized digital data stream, comprising:

receiving a data packet stream comprising a plurality of data packets  
[column 4, lines 55-63]; and  
  
descrambling only a central portion the plurality of data packets [column  
11, lines 24-40].

Mangold et al does not teach descrambling every nth packet, where n is an integer greater than 1, leaving remaining ones of the plurality of data packets as received.

Miliani et al teaches descrambling every nth packet, where n is an integer greater than 1, leaving remaining ones of the plurality of data packets as received [abstract.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al so that only the central portion of every nth packet, where n was an integer greater than 1, would have been decrypted and the leaving the remaining ones.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Mangold et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

**6. Claims 3, 11, 16, 18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mangold et al U.S. Patent No. 6,668,324 B1 and Miliani et al U.S. Patent No. 5,682,426 as applied to claims 1, 10, 15, 17, 19 and 21 above, and further in view of Newton's Telecom Dictionary (hereinafter Newton).**

As to claims 3, 11, 16, 18, 20 and 22, the Mangold-Miliani combination teaches that the digital data stream is an MPEG stream [column 6 line 65 to column 7 line 24].

The Mangold-Miliani combination does not teach that the digital data stream is an MPEG-2 digital data stream.

Newton teaches the use of MPEG-2 and its benefits [pages 489-490].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Mangold-Miliani combination so that the MPEG stream would have been a MPEG-2 digital data stream.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Mangold-Miliani combination by the teaching of Newton because MPEG-2 is efficient. MPEG-2 can incorporate a range of compression ratios, which trade off economies of storage and transmission bandwidth against picture quality [pages 489-490].

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*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy *AM*  
September 28, 2005

*CEL*  
Primary Examiner  
Ar 2131  
9/28/05